We Claim as Our Invention:

1.   A system comprising:

an image signal acquisition unit for acquiring image signals of a first subject an imaging unit for producing an image of said first subject from said image signals;

a position acquisition system for determining a position of said image signal acquisition unit and for determining a position of a second subject relative to said image signal acquisition unit; and

a mixing unit for mixing a representation of said second subject into said image of said first subject.

2.   A system as claimed in claim 1 comprising a navigation system including said position acquisition unit.

3.   A system as claimed in claim 2 wherein said navigation system includes identifiers, selected from the group consisting of detectable marks and position sensors, which are respectively attachable to said image signal acquisition unit and to said second subject and which are identifiable as to position by said position acquisition unit.

4.   A system as claimed in claim 1 wherein said image signal acquisition unit comprises an ultrasound probe.

5.   A system as claimed in claim 1 wherein said image signal acquisition unit comprises an X-ray source and an X-ray receiver.

6.   A system as claimed in claim 1 wherein said imaging unit produces a 3D image of said first subject from said image signals.

7.   A system as claimed in claim 1 wherein said imaging unit produces a 2D image of said first subject from said image signals.

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8. A system as claimed in claim 7 wherein said 2D image represents an image plane in said first subject, and wherein said mixing unit mixes an indication of a distance of said second subject from said image plane into said 2D image.

9. A system as claimed in claim 1 wherein said position acquisition unit simultaneously identifies the position of said image signal acquisition unit and the position of said second subject.

10. A system as claimed in claim 1 further comprising an acceptance device for said first subject and wherein said position acquisition device identifies a position of said acceptance device simultaneously with identifying the position of said image signal acquisition unit and the position of said second subject.

11. A medical workstation comprising:

a support device for supporting a patient;

an image signal acquisition unit for acquiring image signals of a patient of an imaging unit for producing an image of said patient from said image signals;

a position acquisition system for determining a position of said image signal acquisition unit and for determining a position of a medical instrument relative to said image signal acquisition unit; and

a mixing unit for mixing a representation of said medical instrument into said image of said patient.

12. A medical workstation as claimed in claim 11 wherein said medical instrument comprises an instrument for a minimally invasive intervention.

13. A medical workstation as claimed in claim 11 wherein said image signal acquisition unit and said imaging unit, in combination, comprise a system for obtaining intra-operative images of said patient.

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14.   A method for mixing an image of a second subject into an image acquired from a first subject, comprising the steps of:

acquiring an image of a first subject with an image signal acquisition unit;

determining a position of said image signal acquisition unit;

determining a position of a second subject;

determining the position of said second subject relative to said image signal acquisition unit; and

mixing a representation of said second subject into said image of said first subject.